

Name:_____

Date:_____

Period:_____

Unit 2 Test – Practice Test

Patterns and Functions

Identify the independent and dependent variables in the situation. Then find a reasonable domain and range.

Situation: A museum charges \$10 for admission. In two hours they will have between 100 and 200 people enter the museum.

Independent Variable:

Dependent Variable:

Domain:

Range:

The relationships in the tables below are functions. Define your variables and write a function rule to describe the relationship.

X	Y
1	6
2	8
3	10
4	12

Number of weeks	Total Savings
1	\$45
2	\$75
3	\$105
4	\$135

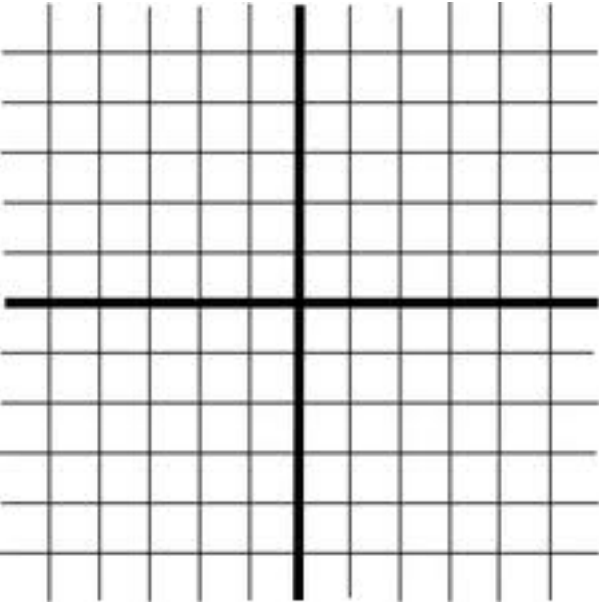
Square Roots

Between what two consecutive integers is each square root? **NO CALCULATOR!**
(3 points)

$\sqrt{70}$	$\sqrt{110}$	$\sqrt{275}$
-------------	--------------	--------------

Simplify each square root. NO CALCULATOR!		
$\sqrt{169}$	$-\sqrt{289}$	$\sqrt{\frac{81}{100}}$
Simplify each square root. Round your answer to the nearest hundredth.		
$-\sqrt{56}$	$\sqrt{955}$	$\sqrt{362}$

Distance Formula
Given the two coordinates, find the distance between the two points.
(3, -8) (-5, 1)

Midpoint Formula
Plot the following points on the coordinate plane.
A (3, -2) B (-5, -2)


Calculate the midpoint.

Plot the midpoint on the line segment – on the coordinate plane.

Why was Pythagoras important?

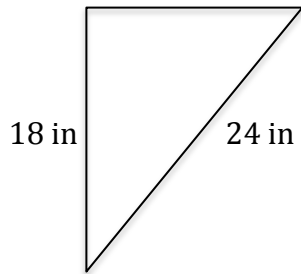
Describe Pythagoreans.

In words, what is the Pythagorean theorem?

Pythagorean theorem

A triangle has side lengths 5 in, 15 in, and 10 in. Is this a right triangle?

Find the length of the missing side.



Use the Pythagorean theorem to solve the following situation.

Situation. A fire truck parks next to a building such that the base of the ladder is 16 feet from the building. The fire truck extends its ladder 30 ft in the air to the tallest window. How high is the window?

Step 1:

Step 2:

Step 3:

Step 4:

